

**Claims**

1. A motor vehicle seat with

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- a backrest which can be brought into an upright use position to form a support for a seat user's back,
- a pivotably mounted cushion carrier for a seat cushion which, in its use position, defines a seat surface for a seat user, and
- a folding mechanism for folding over the cushion carrier in front of the backrest, so that the cushion carrier essentially extends along the backrest when the latter is in its upright use position,

characterized in that the folding mechanism (1, 2) comprises a pair of levers (1), the two levers (11, 12) of which are connected to each other in an articulated manner at a knee joint (10, 10'), with them enclosing an acute angle ( $\alpha$ ) at the knee joint (10, 10'), and in that, when the cushion carrier (T) is folded over from a use position to in front of the backrest (R), the acute angle ( $\alpha$ ) is transformed into an obtuse angle ( $\beta$ ).

2. The motor vehicle seat as claimed in claim 1, characterized in that, when an obtuse angle ( $\beta$ ) with a defined value of greater than  $180^\circ$  is achieved, a further increase of the angle ( $\alpha$ ) by the folding mechanism (1, 2) is prevented.

3. A motor vehicle seat with

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- a backrest which can be brought into an essentially upright use position to form a support for a seat user's back,

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- a pivotably mounted cushion carrier for a seat cushion which, in its use position, defines a seat surface for a seat user, and
- a folding mechanism for folding over the cushion carrier in front of the backrest, so that the cushion carrier essentially extends along the backrest when the latter is in its upright use position,

5           characterized in that the folding mechanism (1, 2) comprises a pair of levers (1), the two levers (11, 12) of which are connected to each other in an articulated manner at a knee joint (10') which is guided in a guide device (5) provided on one of the levers (11, 12), and  
10          15          in that the guide device (5) has a point of discontinuity (50a) over which the knee joint moves (10') when the cushion carrier (T) is folded from a use position to in front of the backrest (R), so that, when the cushion carrier (T) is folded upward in front of  
20          the backrest (R), the knee joint (10') passes into a section (5a) of the guide device (5) behind the point of discontinuity.

25          4. The motor vehicle seat as claimed in claim 3, characterized in that the point of discontinuity (50a) is formed by an angled portion of the guide device (5) in an end section (5a) of the guide device (5).

30          5. The motor vehicle seat as claimed in one of the preceding claims, characterized in that means (25, 52) are provided which limit the adjustment distance of at least one lever (12) of the pair of levers (1) during the folding over of the cushion carrier (T) and which, when a predetermined angle ( $\beta$ ) between the two levers (11, 12) of the pair of levers (1) is reached, oppose a further movement of the at least one lever (12), which would lead to an enlargement of the angle ( $\beta$ ).

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6. The motor vehicle seat as claimed in claim 5,  
characterized in that the means (25, 52) for limiting  
the adjustment distance are formed by a stop.

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7. The motor vehicle seat as claimed in claim 6, characterized in that the stop (25, 52) limits the movement of one lever (12) of the pair of articulated levers (1), the lever (12) which interacts with the  
5 stop (25, 52) preferably being able to be coupled to a floor subassembly (B) of a motor vehicle.

8. The motor vehicle seat as claimed in claim 7, characterized in that the stop (25, 52) is to be provided on a floor subassembly (B) of a motor vehicle or is provided on a lever (11) of the pair of articulated levers (1).  
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9. The motor vehicle seat as claimed in claim 8, characterized in that the stop (52) is formed on a guide device (5) on one lever (11) of the pair of levers (1), and in that the other lever (12) of the pair of levers (1) is guided in this guide device (5).  
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20 10. The motor vehicle seat as claimed in claim 9, characterized in that the other lever (12) is guided in the guide device (5) by a guide element forming the joint (10') of the pair of levers (1).

25 11. The motor vehicle seat as claimed in claim 9 or 10, characterized in that the stop (52) is formed on an angled end section (5a) of the guide device (5).

30 12. The motor vehicle seat as claimed in claim 3 or one of claims 9 to 11, characterized in that the guide device (5) is formed by an elongated hole (50) extended along the one lever (11) of the pair of levers (1).

35 13. The motor vehicle seat as claimed in one of the preceding claims, characterized in that the pair of levers (1) is formed by two levers (11, 12),

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of which the one is arranged on the cushion carrier (T) and the other is to be coupled pivotably to a floor subassembly (B) of the motor vehicle.

5 14. The motor vehicle seat as claimed in claim 13, characterized in that the one lever (11) is coupled pivotably to the cushion carrier (T) or is attached rigidly to the cushion carrier (T).

10 15. The motor vehicle seat as claimed in claim 13 or 14, characterized in that the coupling points (13, 14, H) of the two levers (11, 12) on the cushion carrier (T) and on the floor subassembly (B), and the knee joint (10, 10') of the pair of levers (1) are arranged 15 in such a manner with respect to a pivot axis (20, 20') about which the cushion carrier (T) can be folded that, when the obtuse angle ( $\beta$ ) is present between the two levers (11, 12), the arrangement of the coupling points (H, 13, 14) and of the knee joint (10, 10') oppose a pivoting movement of the cushion carrier (T) about its 20 pivot axis (20, 20'), which would lead to the cushion carrier (T) folding back into the use position.

25 16. The motor vehicle seat as claimed in one of the preceding claims, characterized in that, in the state of the cushion carrier (T) in which it is folded in front of the backrest (R), a stop surface (11a) of one lever (11) of the pair of levers (1) bears against the cushion carrier (T) and thereby opposes a folding of 30 the cushion carrier (T) forward.

17. The motor vehicle seat as claimed in one of the preceding claims, characterized in that an actuating element (6) is arranged on one lever (12) of the pair 35 of levers (1) and by means of its actuation an obtuse angle  $\beta$  between the two levers (11, 12) of the pair of levers (1) can be transferred into an acute angle in

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order to be able to fold back the cushion carrier (T) into the use position again.

18. The motor vehicle seat as claimed in one of the  
5 preceding claims, characterized in that elastic means  
(D; LU, SH; 4; 5) are provided which oppose a

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resetting movement of the cushion carrier (T), which is folded in front of the backrest (R), into its use position.

5 19. The motor vehicle seat as claimed in claim 18, characterized in that the elastic means (4, 5) acts on at least one of the levers (11, 12) of the pair of levers.

10 20. The motor vehicle seat as claimed in claim 19, characterized in that the elastic means (5) are arranged on the knee joint (10) of the pair of levers (1).

15 21. The motor vehicle seat as claimed in claim 20, characterized in that the elastic means (5) are formed by a torsion spring with two free limbs (51, 52) which are supported each on one of the levers (11, 12) of the pair of levers (1).

20 22. The motor vehicle seat as claimed in claim 21, characterized in that the elastic means (4) act specifically on one lever (12) of the pair of levers (1), in particular on a lever (12) of the pair of levers (1) that is connected in an articulated manner to the floor subassembly (B).

25 23. The motor vehicle seat as claimed in claim 19 or 22, characterized in that the elastic means (4) are formed by a linear spring.

30 24. The motor vehicle seat as claimed in claim 18, characterized in that sections (LU, LH) of the backrest cushion (L) and/or of the seat cushion (P) serve as elastic means which oppose a resetting movement of the cushion carrier (T) from its position folded in front of the backrest (R).

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25. The motor vehicle seat as claimed in one of the preceding claims, characterized in that the knee joint (10) is supported on a floor subassembly (B) when the  
5 cushion carrier (T) is in a use position.

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26. The motor vehicle seat as claimed in claim 25, characterized in that, when the cushion carrier (T) is folded over to in front of the backrest (R), the knee joint (10) is raised from the floor subassembly (B).

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27. The motor vehicle seat as claimed in one of the preceding claims, characterized in that the backrest (R) can be folded forward in the direction of the seat surface (F) defined by the cushion carrier (T).

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28. The motor vehicle seat as claimed in claim 27, characterized in that the backrest (R) is mounted pivotably about an axis (A).

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29. The motor vehicle seat as claimed in one of the preceding claims, characterized in that the pivot axis (20, 20') of the cushion carrier (T) is mounted movably.

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30. The motor vehicle seat as claimed in claim 29, characterized in that the pivot axis (20, 20') of the cushion carrier (T) is arranged on a lever (2).

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31. The motor vehicle seat as claimed in claim 30, characterized in that the lever (2) is coupled pivotably by one end to the cushion carrier (T) and, at this coupling point, forms the pivot axis (20) of the cushion carrier (T).

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32. The motor vehicle seat as claimed in claim 31, characterized in that the lever (2) is to be coupled by its other end to a floor subassembly (B) of a motor vehicle.

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33. The motor vehicle seat as claimed in claim 27 or 28 and claim 31 or 32, characterized in that the lever (2) forming the pivot axis (20, 20') of the cushion

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carrier (T) is operatively connected to the backrest (R) via a coupling lever (3).

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34. The motor vehicle seat as claimed in claim 33, characterized in that, when the backrest (R) is folded forward in the direction of the seat surface (F) defined by the cushion carrier (T), the lever (2) 5 forming the pivot axis (20) of the cushion carrier (T) is actuated by means of the coupling lever (3) in such a manner that the pivot axis (20) of the cushion carrier (T) is lowered in the direction of a floor subassembly (B).